

# Utah Data Dictionary

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## Revision History

Date	Version	Description	Author
9/22/2015	1	Creation	RJC
10/5/2015	2	Updates after first UT pass	RJC
10/21/2015	3	Final additions and revisions	RJC
10/29/2015	4	Reduced capitalization	RJC

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## 1 Roadway Condition Tables

### 1.1 Roadway Conditions Table

Field Name	Definition	Units	Data Type	Min	Max	Special Instructions
ROUTE	Route name		Text			

REGION	Region name		Text			
TRAVEL_DIR	Direction of collection		Text			+ for positive - for negative
MANDLI_START_MP	Mile point at start of segment to 4 decimals	Miles	Number	0		
MANDLI_TO_MP	Mile point at end of segment to 4 decimals	Miles	Number	0		Will always be greater than Start MP
UDOT_START_MP	Mile point at start of segment to 3 decimals	Miles	Number	0		
UDOT_END_MP	Mile point at end of segment to 3 decimals	Miles	Number	0		Will always be greater than Start MP
DRIVEN_LANE	Numerical values to denote lane collected		Number	1	5	
PAVEMENT_TYPE	Pavement type		Text			Asphalt, Concrete, Gravel 1/10. mile segments to be broken at every pavement change.
CONC_SHATTERED_LOW	Slab broken into 3 pieces	Number of slabs	Number	0		A slab rated as "shattered" shall not be counted in any of the other concrete distress slab counts.
CONC_SHATTERED_MED	Slab broken into 4 pieces					
CONC_SHATTERED_HIGH	Slab broken into 5 or more pieces					
CONC_LONG_LOW	Crack widths < 1/8" and crack lengths ≥ 2'	Number of slabs	Number	0		Include diagonal cracks (cross the pane at an angle). Do not record for slabs already recorded as shattered slabs.
CONC_LONG_MED	Crack widths 1/8" to 1/2" and crack lengths ≥ 2'					
CONC_LONG_HIGH	Crack widths > 1/2" and crack lengths ≥ 2'					

CONC_TRANS_LOW	Crack widths < 1/8" and crack lengths ≥ 2'	Number of slabs	Number	0		
CONC_TRANS_MED	Crack widths 1/8" to 1/4" and crack lengths ≥ 2'					
CONC_TRANS_HIGH	Crack widths < 1/4" and crack lengths ≥ 2'					
CONC_CRNBK_LOW	One corner break with no spalling or faulting	Number of slabs	Number	0		Do not record for slabs already recorded as shattered slabs. Minimum side length is 1 foot, max is 6 feet. If the side length exceeds 6 feet it is recorded as a longitudinal crack.
CONC_CRNBCK_MED	One corner break AND spalling < 3" OR faulting < 1/2"					
CONC_CRNBCK_HIGH	Two or more corner breaks OR one corner break along with either spalling > 3" or faulting > 1/2"					
CONC_JNTSPL_LOW	Spalling < 3" wide	Number of slabs	Number	0		Mark joint spalls on both longitudinal and transverse joints.
CONC_JNTSPL_MED	Spalling 3" to 6" wide					
CONC_JNTSPL_HIGH	Spalling > 6" wide					
CONC_ASPHALT_PATCH	Count number of slabs with asphalt patches	Number of slabs	Number	0		
CONC_SURF_SPALLS	Count number of slabs with surface spalls	Number of slabs	Number	0		
CONC_POT HOLES	Count number of pot holes per mile	Number of pot holes	Number	0		
CONC_NO_OF_JOINT	Count of transverse joints	Number of joints	Number	0		
CONC_FAULTING_LOW	Faults 0.1" to 0.3"	Number of faults	Number	0		

CONC_FAULTING_MED	Faults 0.3" to 0.5"					
CONC_FAULTING_HIGH	Faults > 0.5"					
CONC_FAULTING_TOTAL	Total number of faults					
CONC_FAULTING_AVERAGE	Average fault height	Inches	Number			HMPS value
ASPH_FATIGUE_MED	Interconnected cracks starting to form an alligator pattern, dimensions generally > 12" length	Square feet	Number	0	2640	The area of segment affected, including longitudinal cracks, construction edge joints and alligator cracking within the wheel path. Use standard wheel path width of 2.5' and an axle width of 68"
ASPH_FATIGUE_HIGH	Alligator pattern with dimensions < 12" length or pieces missing					
ASPH_BLOCK_LOW	Unsealed cracks < 1/4" wide or sealed cracks	Feet	Number	0	528	Length of segment affected
ASPH_BLOCK_MED	Widths 1/4" to 3/4" or secondary cracks width < 1/4"					
ASPH_BLOCK_HIGH	Widths > 3/4" or secondary crack widths ≥ 1/4"					
ASPH_LONG_SEAL	Sealed cracks	Feet (Note: Max can be > 528')	Number	0		Length of longitudinal cracks If cracks are side by side, count both. Include cracks along the center and edge lines.
ASPH_LONG_LOW	Unsealed cracks < 1/4" wide					
ASPH_LONG_MED	Unsealed or poorly sealed cracks with widths > 1/4" and < 3/4" or secondary widths < 1/4"					

ASPH_LONG_HIGH	Widths > 3/4" or secondary > 1/4", unsealed or poorly sealed					
ASPH_TRANS_SEAL	Sealed Cracks	Count (number of cracks)	Number	0		Count only transverse cracks with a minimum length of four feet.
ASPH_TRANS_LOW	Unsealed cracks < 1/4"					
ASPH_TRANS_MED	Unsealed or poorly sealed cracks > 1/4" and < 3/4" or secondary < 1/4"					
ASPH_TRANS_HIGH	Widths > 3/4" or secondary > 1/4", unsealed or poorly sealed					
ASPH_TRANS_EXTENT	Straight line length of low, medium, and high severities					
ASPH_BLEED_LOW	Surface discolored relative to remainder of pavement	Feet	Number	0	528	Length of segment affected Mark anywhere in full lane.
ASPH_BLEED_MED	Losing surface texture due to excess asphalt					
ASPH_BLEED_HIGH	Shiny appearance due to excess asphalt. Aggregate obscured by excess asphalt					
ASPH_PATCH_LOW	Patch has low severity distress of any type including rutting < 6mm; pumping is not evident	Feet	Number	0	6336	Area of segment affected with a minimum patch size of one square foot. Mark anywhere in full lane. Do not rate any distresses on the patch itself. Max of 6,336 sq ft assumes a 12' lane width.

ASPH_PATCH_MED	Patch has moderate severity distress of any type or rutting from 6 to 12mm; pumping is not evident					
ASPH_PATCH_HIGH	Patch has high severity distress of any type including rutting > 12mm, or the patch has additional patch; pumping may be evident					
ASPH_RAVEL_LOW	Asphalt oxidized and some loss of fine aggregate	Feet	Number	0	528	Length of segment affected Mark anywhere in full lane.
ASPH_RAVEL_MED	Loss of fine aggregate and some loss of coarse aggregate, road surface pitted					
ASPH_RAVEL_HIGH	Surface very rough and substantial loss of aggregate in wheel paths					
ASPH_POT HOLES	Count number of pot holes per segment	Number of pot holes	Number	0		
HPMS_CRK_LGTH	Length of crack	Feet per mile				Estimate of relative length in feet per mile of transverse cracking for AC pavements and reflection cracking for composite pavements where AC is the top most layers.

HPMS_CRK_PERC	Percent of affected wheel path area/ total lane area	%				Calculated on AC by segmenting wheel path into 1m pieces and determining whether each piece is affected. Affected pieces have either at least 3 cracks or at least 1m of cracking.
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						On JPCP, values is affected slabs / total slabs.
AFFCTD_WHLPTH_AREA	Area of the wheelpath that is affected by distress	Square Feet	Number	0	2640	Distress is counted
LANE_WIDTH	Distance between outermost LCMS detection lines	Feet	Number			
IRI_LEFT	IRI in left wheel path	Inches per mile	Number	30	600	Invalidate IRI (blank field) for cattle guards, bridges, railroad crossings or low speed (<12.5 mph).
IRI_RIGHT	IRI in right wheel path					
IRI	Average of left and right IRI					
HALF_CAR_IRI	Half car IRI					
IRI_HPMS	Average left and right IRI					Do not invalidate over bridges
RUT_LEFT	Rutting in left wheel path	Inches	Number	0	5	Values exceeding 3 inches will be verified
RUT_RIGHT	Rutting in right wheel path		Number			



BRIDGE_FLAG	Denotes presence of a bridge within the segment		Number			1 = True, Blank = False
DEVIATION_FLAG	Denotes a deviation from collection lane within the segment					1 = True, Blank = False
CATTLEGUARD_FLAG	Denotes presence of cattle guard within the segment					1 = True, Blank = False
CONSTRUCTION_FLAG	Denotes presence of construction within the segment					1 = True, Blank = False
RAILROAD_CROSSING_FLAG	Denotes presence of a railroad crossing within the segment					1 = True, Blank = False
ONE_WAY_FLAG	Denotes a one-way roadway		Number			1 = True, Blank = False
BEG_LAT	Degrees latitude at beginning of the segment	Degrees	Number	0	360	These values should reflect the southern and northern limits of latitude for the state of Utah
BEG_LONG	Degrees longitude at beginning of the segment	Degrees	Number	0	360	These values should reflect the eastern and western limits of longitude for the state of Utah
BEG_ELEV	Elevation at beginning of the segment	Feet	Number	2000	13,500	Use "mean sea level"
SPEED	Collection vehicle speed at the beginning of the segment	MPH	Number	0	65	
GRADE	Average grade over the segment	Percent	Number	-12	12	Always related to a positive direction A positive grade value denotes an uphill section
CROSS_SLOPE	Average cross slope over the segment in the driving lane only	Percent	Number	-8	8	A positive value denotes a slope down to the right side of the lane
COMMENTS	Comments		Text			

COLLECTED_DATE	Date the data collection occurred		Date			
LRS_VERSION	Denotes the LRS Version used to collect data		Text			

#### Additional Notes

- Zero length sections (based on UDOT mileage) will be removed from table prior to delivery
- Transverse profiles will also be delivered
- Report breaks at tenth mile increments, pavement changes within the driven lane, and N<->P transitions.

### 1.2 Rutting Table

Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	Number		Starting mile point in miles	999.999	123.589
RUT_LEFT	Number		Inches	9.99	0.83
RUT_RIGHT	Number		Inches	9.99	1.24
BRIDGE_FLAG	Boolean	Denotes presence of a bridge within the segment	1 or 0		1
DEVIATION_FLAG	Boolean	Denotes a deviation from collection lane within the segment	1 or 0		1
CATTLEGUARD_FLAG	Boolean	Denotes presence of cattle guard within the segment	1 or 0		1
CONSTRUCTION_FLAG	Boolean	Denotes presence of construction within the segment	1 or 0		1

### 1.3 Curve Table

Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
REGION	Text	Region name		Text	
TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	Number		Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	Number		Ending mile point in miles	999.999	123.897
CURVE_CLASS	Character		HPMS Curve Class	Text	A
CURVE_DEGREE	Number		Degree	999.9	120.1
CURVE_RADIUS	Number		Feet	6 digits	500
CURVE_LENGTH	Number		Feet	6 digits	1500
BEG_LON	Number		DD	999.999999	-111.123456
BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	Number		Feet	999.999	258.099
END_LON	Number		DD	999.999999	-111.123456
END_LAT	Number		DD	999.999999	40.123456
END_ELEV	Number		Feet	999.999	258.099
ADMINISTRATIVE_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin

## 2 Roadway Asset Tables

### 2.1 Lanes

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
ACCELL_LANE_COUNT	ACCELL_CNT	Number			1 digit	2
AUX_LANE_COUNT	AUX_CNT	Number			1 digit	2
BIKE_LANE_COUNT	BIKE_CNT	Number			1 digit	2
DECELL_LANE_COUNT	DECELL_CNT	Number			1 digit	2
GRAVEL_ISLAND_COUNT	GRAVEL_CNT	Number			1 digit	2
HOV_LANE_COUNT	HOV_CNT	Number			1 digit	2
LEFT_SHOULDER_COUNT	LSHLDR_CNT	Number			1 digit	2
LEFT_TURN_LANE_COUNT	L_TURN_CNT	Number			1 digit	2
OTHER_LANE_COUNT	OTHER_CNT	Number			1 digit	2
PAINTED_ISLAND_COUNT	PNT_ISL_CT	Number			1 digit	2

PASSING_LANE_COUNT	PASS_CNT	Number			1 digit	2
RAISED_ISLAND_COUNT	RSD_ISL_CT	Number			1 digit	2
RAPID_TRANSIT_LANE_COUNT	RAP_TRN_CT	Number			1 digit	2
RIGHT_SHOULDER_COUNT	RSHLDR_CNT	Number			1 digit	2
RIGHT_TURN_LANE_COUNT	R_TURN_CNT	Number			1 digit	2
THRU_LANE_COUNT	THRU_CNT	Number			1 digit	2
THRU_LANE_WIDTH	THRU_WDTH	Number	Average width of through lanes in the section	Rounded to the nearest foot	1 or 2 digits	12
TWO_WAY_LEFT_LANE_COUNT	TWOWAY_CNT	Number			1 digit	2
TWO_WAY_LEFT_WITH_MEDIAN_ISLAND_LANE_COUNT	TWWY_MD_CT	Number			1 digit	2
OMS_LANES	OMS_LANES	Number	Sum of Thru, Accel, Decel, and HOV, Right Turn, and Left Turn lanes		1 or 2 digit	4
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>1411 – Region 1 Maint Admin</li> <li>2411 – Region 2 Maint Admin</li> <li>3411 – Region 3 Maint Admin</li> <li>4411 – Region 4 Maint Admin</li> </ul>		30 Characters	1411 – Region 1 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456

END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

## 2.2 Bike Lanes

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
BIKE_LANE_COUNT	BIKE_CNT	Number			1 digit	2

STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>1411 – Region 1 Maint Admin</li> <li>2411 – Region 2 Maint Admin</li> <li>3411 – Region 3 Maint Admin</li> <li>4411 – Region 4 Maint Admin</li> </ul>		30 Characters	1411 – Region 1 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

#### Additional Notes

- Data will be dissolved where mileage is continuous

## 2.3 Rumble Strips

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
RUN_LENGTH	RUN_LENGTH	Number	Extent of rumble strip in feet		9999	200
UT_POSITION	UTPOSITION	Pick List	<ul style="list-style-type: none"> <li>• LEFT</li> <li>• RIGHT</li> <li>• CENTER</li> </ul>		Text	LEFT
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 – Region 1 Maint Admin</li> <li>• 2411 – Region 2 Maint Admin</li> <li>• 3411 – Region 3 Maint Admin</li> <li>• 4411 – Region 4 Maint Admin</li> </ul>		30 Characters	1411 – Region 1 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456



BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

## 2.4 Medians

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
WIDTH	WIDTH	Number		Average median width, in whole feet	4 digits	40

MEDIAN_TYPE	MEDIAN_TYP	Pick List	<ul style="list-style-type: none"> <li>• DEPRESSED MEDIAN</li> <li>• NO MEDIAN</li> <li>• OTHER DIVIDED</li> <li>• PAINTED MEDIAN</li> <li>• RAILROAD</li> <li>• RAISED MEDIAN</li> <li>• RAPID TRANSIT</li> <li>• SEPARATE GRADES</li> <li>• UNDIVIDED</li> </ul>			DEPRESSED MEDIAN
TRAFFIC_ISLAND_TYPE	TRFISL_TYP	Pick List	<ul style="list-style-type: none"> <li>• MEDIAN ISLAND</li> <li>• NO ISLAND</li> <li>• ROUNDABOUT</li> </ul>			MEDIAN ISLAND
MEDIAN_PROTECTION	MDN_PRTCTN	Pick List	<ul style="list-style-type: none"> <li>• PROTECTED</li> <li>• UNPROTECTED</li> </ul>			PROTECTED
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Char	2431 – West
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	

COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
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## 2.5 Traffic Islands and Roundabouts

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+

MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
TRAFFIC_ISLAND_TYPE	TRFISL_TYP	Pick List	<ul style="list-style-type: none"> <li>Median Island</li> <li>Splitter Island</li> <li>Roundabout</li> </ul>			Median Island
ISLAND_WIDTH	ISL_WIDTH	Number	Average width of Island in whole feet	Approximate width in feet	99	23
RUN_LENGTH	RUN_LENGTH	Number	Will be calculated using UDOT End MP – UDOT Start MP	Approximate length in feet	999	35
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Char	2431 – West Jordan

REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

## 2.6 Barriers

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	-lfwe349ghfek
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P

TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
RUN_LENGTH	RUN_LENGTH	Number		Length of the run, in feet, from end of low end treatment to beginning of high end treatment	Numbers	4520
UT_POSITION	UTPOSITION	Pick List	<ul style="list-style-type: none"> <li>• LEFT</li> <li>• RIGHT</li> <li>• CENTER</li> </ul>		Text	LEFT

GUARDRAIL_TYPE	TYPE	Pick List	<ul style="list-style-type: none"> <li>• BOX BEAM</li> <li>• CABLE</li> <li>• "CONSTANT SLOPE CONCRETE BARRIER"</li> <li>• JERSEY BARRIER 12.5</li> <li>• JERSEY BARRIER 20</li> <li>• OTHER</li> <li>• W-BEAM</li> <li>• OTHER</li> </ul>		Text	BOX BEAM
POST_TYPE	POST_TYPE	Pick List	<ul style="list-style-type: none"> <li>• CONCRETE</li> <li>• NONE/OTHER</li> <li>• STEEL</li> <li>• WOOD</li> </ul>		Text	STEEL



LOW_END_TREATMENT	LW_END_TRT	Pick List	<ul style="list-style-type: none"> <li>• ANCHOR TYPE I</li> <li>• ANCHOR TYPE II</li> <li>• BARRIER TRANSITION</li> <li>• BEAT-SCCC</li> <li>• BEST</li> <li>• BRAKEMASTER</li> <li>• BREAKAWAY CABLE TERMINAL</li> <li>• BULLNOSE</li> <li>• BURIED IN BACKSLOPE</li> <li>• C.A.T. 350</li> <li>• CONCRETE BURIED IN BACKSLOPE</li> <li>• CONCRETE SLOPED END SECTION</li> <li>• ECCENTRIC LOADER TERMINAL</li> <li>• END SHOE</li> <li>• ET-2000</li> <li>• ET-PLUS</li> <li>• FLEAT 350</li> <li>• FLEAT MT</li> <li>• G.R.E.A.T.</li> <li>• MIDSPAN</li> <li>• MODIFIED ECCENTRIC LOADER</li> <li>• NO TREATMENT</li> <li>• OTHER</li> <li>• QUADGUARD ELITE</li> <li>• QUADGUARD LMC</li> <li>• QUADGUARD M10</li> <li>• QUADGUARD NARROW</li> <li>• QUADGUARD WIDE</li> <li>• QUADTREND 350</li> <li>• QUEST</li> <li>• SAND BARREL ARRAY</li> <li>• SCI SM1100GM NARROW</li> <li>• SCI SM1100GM WIDE</li> <li>• SENTRE</li> <li>• SKT-350</li> <li>• SRT-350 8-POST</li> <li>• SRT/HBA 6-POST</li> <li>• TAU-II NARROW</li> <li>• TAU-II WIDE</li> </ul>		Text	BEAT-SCCC
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			<ul style="list-style-type: none"> <li>• TEXAS TURNDOWN</li> <li>• TRACC NARROW</li> <li>• TRACC WIDE</li> <li>• TREND</li> </ul>			
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HIGH_END_TREATMENT	HI_END_TRT	Pick List		Text	BEAT-SCCC
			<ul style="list-style-type: none"> <li>• ANCHOR TYPE I</li> <li>• ANCHOR TYPE II</li> <li>• BARRIER TRANSITION</li> <li>• BEAT-SCCC</li> <li>• BEST</li> <li>• BRAKEMASTER</li> <li>• BREAKAWAY CABLE TERMINAL</li> <li>• BULLNOSE</li> <li>• BURIED IN BACKSLOPE</li> <li>• C.A.T. 350</li> <li>• CONCRETE BURIED IN BACKSLOPE</li> <li>• CONCRETE SLOPED END SECTION</li> <li>• ECCENTRIC LOADER TERMINAL</li> <li>• END SHOE</li> <li>• ET-2000</li> <li>• ET-PLUS</li> <li>• FLEAT 350</li> <li>• FLEAT MT</li> <li>• G.R.E.A.T.</li> <li>• MIDSPAN</li> <li>• MODIFIED ECCENTRIC LOADER</li> <li>• NO TREATMENT</li> <li>• OTHER</li> <li>• QUADGUARD ELITE</li> <li>• QUADGUARD LMC</li> <li>• QUADGUARD M10</li> <li>• QUADGUARD NARROW</li> <li>• QUADGUARD WIDE</li> <li>• QUADTREND 350</li> <li>• QUEST</li> <li>• SAND BARREL ARRAY</li> <li>• SCI SM1100GM NARROW</li> <li>• SCI SM1100GM WIDE</li> <li>• SENTRE</li> <li>• SKT-350</li> <li>• SRT-350 8-POST</li> <li>• SRT/HBA 6-POST</li> <li>• TAU-II NARROW</li> <li>• TAU-II WIDE</li> </ul>		

			<ul style="list-style-type: none"><li>• TEXAS TURNDOWN</li><li>• TRACC NARROW</li><li>• TRACC WIDE</li><li>• TREND</li></ul>			
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HEIGHT	HEIGHT	Number			99.9	3.1
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character	Comment “Temporary” where barrier is a temporary barrier within a construction zone	Pertinent comments concerning the barrier or end treatments	200 character max	Painted
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## Additional Notes

- If the end treatment isn’t attached to a barrier (Stand Alone) “Other” will be used as Guardrail Type.

## 2.7 Surface Areas and Pavement Width

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.589
MANDLI_END_MP	MANDLI_EMP	Number		Ending mile point in miles	999.9999	123.897
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number		Ending mile point in miles	999.999	123.897
ASPHALT_WIDTH	ASPLT_WDTH	Number		Feet	99.99	24.66
CONCRETE_WIDTH	CNCRT_WDTH	Number		Feet	99.99	24.66
GRAVEL_WIDTH	GRAV_WDTH	Number		Feet	99.99	24.66
POLYMER_WIDTH	POLY_WDTH	Number		Feet	99.99	24.66
OTHER_WIDTH	OTHER_WDTH	Number		Feet	99.99	24.66
ASPHALT_AREA	ASPLT_AREA	Number		One Surface Area is a unit of area, defined as an area of paved surface equivalent to 12 feet wide by 1 mile long, (i.e. 7,040 Square Yards).	99.999	2.398

CONCRETE_AREA	CNCRT_AREA	Number		Same as asphalt area	99.999	2.398
GRAVEL_AREA	GRAV_AREA	Number		Same as asphalt area	99.999	2.398
POLYMER_AREA	POLY_AREA	Number		Same as asphalt area	99.999	2.398
OTHER_AREA	OTHER_AREA	Number		Same as asphalt area	99.999	2.398
TOTAL_AREA	TOTAL_AREA	Number	Sum of all surface area types	Same as asphalt area	99.999	2.398
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – WEST JORDAN
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>1411 - Region 1 Maint Admin</li> <li>2411 - Region 2 Maint Admin</li> <li>3411 - Region 4 Maint Admin</li> <li>4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 – Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456
END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

## 2.8 Sign Supports

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
OFFSET	OFFSET	Number		Distance, in feet, from the edge of pavement to the point where the support meets the ground.	99	14
UT_POSITION	UTPOSITION	Pick List	<ul style="list-style-type: none"> <li>• CENTER</li> <li>• LEFT</li> <li>• MEDIAN</li> <li>• OVERHEAD</li> <li>• RIGHT</li> <li>• T INTERSECTION</li> <li>• OTHER</li> </ul>		Text	RIGHT
SIGN_COUNT	SIGN_COUNT	Number		The number of individual signs attached to the sign support	99	2

MOUNT_TYPE	MOUNT_TYPE	Pick List	<ul style="list-style-type: none"> <li>• CANTILEVER TRUSS</li> <li>• CANTILEVER TUBE</li> <li>• “DOUBLE CANTILEVER”</li> <li>• DOUBLE POST</li> <li>• FIVE POST</li> <li>• FOUR POST</li> <li>• GATE</li> <li>• ONE POST</li> <li>• OTHER</li> <li>• SIGNAL POLE</li> <li>• SPAN WIRE</li> <li>• “STRUCTURE MOUNTED”</li> <li>• TRIPLE POST</li> <li>• TRUSS SIGN BRIDGE</li> <li>• TUBE SIGN BRIDGE</li> <li>• “TUBE SIGN BRIDGE WITH CANTILEVER”</li> <li>• UTILITY POLE</li> </ul>		Text	ONE POST
SUPPORT_MATERIAL	SPRT_MTRL	Pick List	<ul style="list-style-type: none"> <li>• STEEL (used for all metal)</li> <li>• WOOD</li> <li>• OTHER</li> </ul>		Text	Steel
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		TEXT	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		TEXT	1411 - Region 1 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	8301 – Maintenance Admin	Text	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099

COMMENTS	COMMENTS	Character			200 character max	Black PVC coated chain link
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.9 Sign Faces

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
SUPPORT_ID	ASSMBLY_ID	Number	Sign support Mandli ID assigned by Mandli	Unique Asset ID that links to the sign support asset associated with each sign	Text	1234567



MUTCD_CODES	MUTCD	Pick List	<ul style="list-style-type: none"> <li>• Standard MUTCD sign designations or UDOT Sign Manual designations or</li> <li>• 1BLACK</li> <li>• 1BLUE</li> <li>• 1BROWN</li> <li>• 1GREEN</li> <li>• 1ORANGE</li> <li>• 1WHITE</li> <li>• 1YELLOW</li> <li>• 1RED</li> <li>• 1PURPLE</li> <li>• HYBRID</li> </ul>		Text	R1-1
BACKING_TYPE	BCKING_TYP	Pick List	<ul style="list-style-type: none"> <li>• EXTRUDED</li> <li>• FLATSHEET</li> </ul>		Text	EXTRUDED

SIGN_LEGEND	LEGEND	Character		<p>The text legend as it appears on the sign</p> <p>Leave this field blank for any sign that contains a legend element in the sign name.</p> <p>Speed limit signs don't need "SPEED LIMIT"</p>	Text	Provo 35
SIGN_WIDTH	WIDTH	Number		<p>The horizontal width of the sign face in inches.</p> <p>For diamond-shaped signs, the measurement along an edge of the sign in inches.</p> <p>For hex and round, the diameter in inches.</p>	999	36

SIGN_LENGTH	LENGTH	Number		The vertical measurement of the sign face, in inches. For diamond, the measurement along the edge perpendicular to the sign width.	999	36
HEIGHT	HT_ABV_RD	Number		The height in feet from the left/bottom edge of the sign to the edge of pavement.	99	7
SIGN_CONDITION	CONDITION	Pick List	<ul style="list-style-type: none"> <li>• FAIR</li> <li>• GOOD</li> <li>• POOR</li> </ul>		200 character max	GOOD
SIGN_CONDITION_COMMENT	COMMENTS	Pick List	<ul style="list-style-type: none"> <li>• BENT</li> <li>• DAMAGED</li> <li>• DELAMINATED</li> <li>• DENTS</li> <li>• DIRTY</li> </ul>		200 character max	
			<ul style="list-style-type: none"> <li>• FADED PAINT</li> <li>• FALLEN</li> <li>• GOOGLE</li> <li>• GRAFFITI</li> <li>• OBSTRUCTED VIEW</li> <li>• RUSTY</li> <li>• STICKER</li> <li>• TEMP OBSTRUCTED</li> </ul>			
SIGN_ORIENTATION	FACING_DIR	Pick List	<ul style="list-style-type: none"> <li>• EAST</li> <li>• NORTH</li> <li>• NORTH EAST</li> <li>• NORTH WEST</li> <li>• SOUTH</li> <li>• SOUTH EAST</li> <li>• SOUTH WEST</li> <li>• UNKNOWN</li> <li>• WEST</li> </ul>	The direction that the retroreflective face of the sign faces	Text	North West

MOUNT_TYPE	MOUNT_TYPE		Populated by Mount Type in Sign Assemblies			
UT_POSITION	UTPOSITION		Populated by UT Position in Sign Assemblies			
OFFSET	OFFSET		Populated by Offset in Sign Assemblies			
SUPPORT_MATERIAL	SPRT_MTRL		Populated by Support Material in Sign Assemblies			
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.10 Billboard Supports

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589

PERMIT_NUMBER	PERMIT_NUM	Text	Matched from list provided by UDOT		Text	3-0955
SIGN_OWNER	SIGN_OWNER	Text	Matched from list provided by UDOT		Text	YESCO Outdoor Media LLC
RATED_FACES	RATEDFACES	Number		The number of individual faces able to be rated on assembly	9	2
TOTAL_FACES	TOTALFACES	Number		The total number of faces on assembly, including those obstructed from view	9	3

BILLBOARD_TYPE	TYPE	Pick List	<ul style="list-style-type: none"> <li>• SINGLE</li> <li>• SIDE-BY-SIDE</li> <li>• V-SHAPE</li> <li>• BACK-TO-BACK</li> <li>• BACK-TO-BACK AND SIDE-BY-SIDE</li> <li>• V-SHAPE AND SIDE-BY-SIDE</li> <li>• STACKED</li> <li>• BACK-TO-BACK AND STACKED</li> <li>• V-SHAPED AND STACKED</li> <li>• V-SHAPED, STACKED, AND SIDEBY-SIDE</li> <li>• BACK-TO-BACK, STACKED, SIDEBY-SIDE</li> </ul>		Text	BACK-TO-BACK
RATING_STATUS	RATE_STAT	Pick List	<ul style="list-style-type: none"> <li>• FULL</li> <li>• OBSTRUCTED</li> <li>• OUT OF RANGE</li> </ul>		Text	FULL
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – WEST JORDAN
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		Text	1411 - REGION 1 MAINT ADMIN
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	8301 – Maintenance Admin	Text	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character			200 character max	Black PVC coated chain link

COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.11 Billboard Faces

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
SUPPORT_ID	ASSMBLY_ID	Number	Billboard support Mandli ID assigned by Mandli	Unique Asset ID that links to the billboard support asset associated with each sign	Text	-jfwth4hf83nfi
WIDTH	WIDTH	Number		The horizontal width of the billboard face in inches.	999	36
HEIGHT	HEIGHT	Number		The height in inches from the left/bottom edge of the face to the top left edge of the billboard face.	999	637
FACE_NUMBER	FACE_NUM	Number	Describes position of face on assembly		9	2

BACKSIDE	BACKSIDE	Boolean	1 = True, 0= False			0
BILLBOARD_TYPE	TYPE		Populated by Mount Type in Billboard Assemblies			
HEIGHT_ABOVE_PAVEMENT	HT_ABV_RD	Number		Vertical distance in feet from the edge of pavement to the bottom left corner of billboard face	999	127
DISTANCE_FROM_PAVEMENT	OFFSET	Number		Horizontal distance in feet from the edge of pavement to the bottom left corner of billboard face		
BEG_LONG	BEG_LONG	Number		DD	999.99999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.99999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.99999	258.099732
COMMENTS	COMMENTS	Character			200 character max	Obsolete Adopt-highway sign
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.12 Shoulders

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ID	ID	Number		Arbitrary unique identification number	999999	567475
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891

MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
UT_POSITION	UTPOSITION	Pick List	<ul style="list-style-type: none"> <li>• LEFT</li> <li>• RIGHT</li> <li>• CENTER</li> </ul>		Text	LEFT
SHOULDER_TYPE	SHLDR_TYPE	Pick List	<ul style="list-style-type: none"> <li>• ASPHALT</li> <li>• CONCRETE</li> <li>• POLYMER</li> <li>• NO SHOULDER</li> </ul>		Text	NO SHOULDER
SHOULDER_WIDTH	SHLDR_WDTH	Number			999.9	10.0
EDGE_TYPE	EDGE_TYPE	Pick List	<ul style="list-style-type: none"> <li>• ASPHALT CURB/GUTTER</li> <li>• CONCRETE CURB/GUTTER</li> <li>• NONE</li> <li>• OTHER</li> <li>• PAVED DITCH</li> <li>• GRAVEL</li> </ul>		Text	NONE
STATION	STATION	Pick List	See allowable pick list values in Table 18.		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 - MAINTENANCE ADMIN	30 characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456



END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature, if needed – this field is usually blank	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

## 2.13 Paint Striping

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive; - for negative		Text	+

MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
MANDLI_END_MP	MANDLI_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.9999	123.8973
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UDOT_END_MP	UDOT_EMP	Number	Will always be greater than Start MP	Ending mile point in miles	999.999	123.897
FOUR_SOLID_WHITE	FR_SLD_WHT	Number	Quantity of paint type in linear feet	Feet	9999	2006

FOUR_SOLID_YELLOW	FR_SLD_YLW	Number	Quantity of paint type in linear feet	Feet	9999	2006
EIGHT_SOLID_WHITE	ET_SLD_WHT	Number	Quantity of paint type in linear feet	Feet	9999	1536
FOUR_DASHED_WHITE	FR_DSH_WHT	Number	Quantity of paint type in linear feet	Feet	9999	423
FOUR_DASHED_YELLOW	FR_DSH_YLW	Number	Quantity of paint type in linear feet	Feet	9999	1455
EIGHT_LANE_DROP_WHITE	ET_LND RP_W	Number	Quantity of paint type in linear feet	Feet	9999	74
FOUR_DOTTED_WHITE	FR_DTD_WHT	Number	Quantity of paint type in linear feet	Feet	9999	836
FOUR_DOTTED_YELLOW	FR_DTD_YLW	Number	Quantity of paint type in linear feet	Feet	9999	731
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT.	Feet	Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>1411 - Region 1 Maint Admin</li> <li>2411 - Region 2 Maint Admin</li> <li>3411 - Region 4 Maint Admin</li> <li>4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 - Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
END_LONG	END_LONG	Number		DD	999.999999	-111.123456
END_LAT	END_LAT	Number		DD	999.999999	40.123456

END_ELEV	END_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature		
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010

#### Additional Notes:

- Mandli will also provide a shape file at the end of the project, which will contain spatial representations of each paint line, attributed to denote color, style, and width.

## 2.14 Pavement Messages

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	2565474
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
UT_POSITION	UTPOSITION	Pick List	<ul style="list-style-type: none"> <li>• LEFT</li> <li>• RIGHT</li> <li>• CENTER</li> </ul>		Text	LEFT

PAVE_MESSAGE_TYPE	TYPE	Pick List	<ul style="list-style-type: none"> <li>• ARROW</li> <li>• BIKE</li> <li>• CROSSWALK</li> <li>• HATCH LINES</li> <li>• HOV</li> <li>• LOOK</li> <li>• MERGE ARROW</li> <li>• RAILROAD CROSSING</li> <li>• ROUTE SHIELD</li> <li>• SCHOOL CROSSWALK</li> <li>• STOP BAR</li> <li>• TEXT</li> <li>• YIELD</li> <li>• OTHER (symbols only)</li> </ul>		Text	TEXT
MESSAGE_COUNT	MSSGE_CNT	Number		See Table 10, List 1 for message count and how to count messages	2 digits	9
LEGEND	LEGEND	Character		Used when Pave Message Type is 'Text'	Text	STOP AHEAD
LENGTH	LENGTH	Number		Feet	99.9	10.1
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin
ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 - Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456

BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Describe "Other" message content	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.15 Roadway Utilities

Field Name	Shapefile Field Name	Data Type	Acceptable Pick List Values or Description	Unit of Measure or Description	Format	Example
MANDLI_ID	MANDLI_ID	Number	Mandli Assigned	Unique Asset ID	Text	-Jdft5ot6cds5
ROUTE	ROUTE	Alpha/ Numeric		LRS route number	4 digits and 1 character	0015P
TRAVEL_DIR	TRAVEL_DIR	Text	+ for positive - for negative		Text	+
MANDLI_START_MP	MANDLI_BMP	Number		Starting mile point in miles	999.9999	123.5891
UDOT_START_MP	UDOT_BMP	Number		Starting mile point in miles	999.999	123.589
TYPE	TYPE	Pick List	<ul style="list-style-type: none"> <li>• MANHOLE</li> <li>• UTILITY</li> <li>• CATCH BASIN</li> <li>• MONUMENTS</li> <li>• OTHER</li> </ul>		Text	UTILITY
LOCATION	LOCATION	Pick List	<ul style="list-style-type: none"> <li>• IN ROADWAY</li> <li>• IN GUTTER</li> <li>• OUTSIDE ROADWAY</li> </ul> Left blank unless Type = CATCH BASIN			IN GUTTER
STATION	STATION	Pick List	Pick list defined by Station Shapefile provided by UDOT		Text	2431 – West Jordan
REGION	REGION	Pick List	<ul style="list-style-type: none"> <li>• 1411 - Region 1 Maint Admin</li> <li>• 2411 - Region 2 Maint Admin</li> <li>• 3411 - Region 4 Maint Admin</li> <li>• 4411 - Region 4 Maint Admin</li> </ul>		30 Characters	2411 – Region 2 Maint Admin

ADMINISTRATIVE_UNIT	ADMIN_UNIT	Pick List	8301 – Maintenance Admin	Always 8301 - Maintenance Admin	30 Characters	8301 – Maintenance Admin
BEG_LONG	BEG_LONG	Number		DD	999.999999	-111.123456
BEG_LAT	BEG_LAT	Number		DD	999.999999	40.123456
BEG_ELEV	BEG_ELEV	Number		Feet	999.999	258.099
COMMENTS	COMMENTS	Character		Clarifying comments about the feature	200 character max	
COLLECTED_DATE	COLL_DATE	Date		Date the field data was gathered	Mm/dd/yyyy	06/15/2010
GHOSTED	GHOSTED	Boolean	true or false	Denotes use of ghost from previous collection	0 or 1	1

## 2.16 Suspected Serious Injury

Injury Code	Conversion	Definitions / Instructions / Notes	Source	Location
1	No Injury			
2	Possible Injury			
3	Suspected Minor Injury			
4	Suspected Serious Injury			
5	Fatal			